ZIXUAN LIANG

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EDUCATION

Northeastern University   May 2019 - April 2021 (Expected)
Masters in Computer Engineering   *Boston, MA*
GPA: 3.8/4.0
Projects Portfolio: Link

SKILLS

Programming	Python, R, SQL, C++, JavaScript, HTML, CSS
Tools & Technologies	PyTorch, SKLearn, MySQL, Spark, Tableau, Git
Industry Knowledge	Data Science, Machine Learning, Data Visualization

PUBLICATION

Context-Aware Teams of Multiple Autonomous Agents Operating under Constrained Communications.
Z. Liang, M. Shaham, Y. Wu, J. Martinez. 2021 International Conference on Robotics and Automation.
(submitted) Link

EXPERIENCE

Northeastern University   May 2019 - Apr 2020
Research Assistant   *Boston, MA*

· Project: Distributed Drones Operating under Uncertainty funded by the Air Force Research Lab.
· Developed a real-time object detection and tracking system achieving 30+ FPS on NVIDIA Jetson.
· Video demonstration of the fully autonomous drones: Link. Publication

Lonza   May 2018 - July 2018
Data Science Intern   *Visp, Switzerland*

· Developed conversational chatbots to help train 3000 new employees from acquisition of Capsugel.
· Wrote optical character recognition software to automate documents digitization.
· Conducted data visualization of business data and presented reports to the manager.

RTBAsia   Jun 2017 - Aug 2017
Data Science Intern   *Shanghai, China*

· Developed IPLab application on iOS. Link
· Implemented real-time bots and non-human traffic detection algorithms.

TEACHING

Northeastern University   Sep 2020 - Dec 2020
Teaching Assistant   *Boston, MA*

· Undergraduate course: Computer Organization - class of 35 students.
· Aided professor in determining class content and guided individual students on assignments.
· Held weekly office hours and evaluated student performance by grading assignments and projects.

PROJECTS

Improving Patient Engagement at Clinic   Jan 2020 - Apr 2020
Northeastern University   *Boston, MA*

· Advanced Machine Learning course project 2: Report, GitHub
· Applied data science to health care: created clusters of patients based on the engagement level.
· Performed prediction modeling to inform feature selection in population of interest.
· Proposed an intervention that would address behaviors that impact our variables of interest.

Text Analysis on Consumer Postings of Samsung Galaxy vs iPhone   Jan 2020 - Apr 2020
Northeastern University   *Boston, MA*

· Advanced Machine Learning course project 1: Report, GitHub
· Used different techniques including sentiment analysis, topic modelling (NMF), time series prediction modelling to understand customers' feeling about each product.
· Predicted uptake/adoption of products by plotting trends of sentiments before and after product release.

Computer Vision: Mask R-CNN - Pedestrian Detection   Sep 2019 - Dec 2019
Northeastern University   *Boston, MA*

· Computer Vision course project: Report, GitHub
· Applied Mask R-CNN model for pedestrian detection for autonomous vehicles.

Airbnb Host Rating Optimization Model   Sep 2019 - Dec 2019
Northeastern University   *Boston, MA*

· Machine Learning course project: Poster, GitHub
· Trained regression models for Airbnb host review ratings.
· Built pipelines, validated and compared the model performance on Spark.

Boston Crime Stats Analysis   May 2019 - Aug 2019
Northeastern University   *Boston, MA*

· Database Systems course project: Visualization Webpage, GitHub
· Built MySQL relational database with Boston crime dataset.
· Performed data analysis and visualization to evaluate safety of neighborhoods in Boston.